

REMARKS

This application has been carefully studied and amended in view of the Office Action dated December 2, 2008. Reconsideration of that Action is requested in view of the following, which includes comments made in a telephone conference by the undersigned attorney with Examiner McNally on February 19, 2009.

It is respectfully submitted that parent claim 9 is patentable over Rinkewich in view of Nettesheim, Dries, and Lusignea or alternatively over Fell in view of Nettesheim, Dries, Lusignea and optionally, in view of Rinkewich.

Parent claim 9 relates to a method of assembling elements of a structure based on a plastic transparent to laser radiation. In this method, a transparent cellular honeycomb core is sandwiched between two skins which are disposed perpendicular to the walls of the cells. The skins are uniaxially or biaxially oriented. At least one of the skins and the core are assembled by welding using laser radiation and at least one of the elements to be assembled comprises in the vicinity of at least one part of its surface, a layer that at least partially absorbs the laser radiation. The welding takes place by the melting of this layer by means of the laser radiation in the weld zones without destroying the orientation. As pointed out in parent claim 9, the skins are provided on one of their faces near their surface with a radiation-absorbent layer. The core and the skins themselves are transparent to radiation. Thus the structural relationship is one wherein there is an intermediate transparent cellular honeycomb core which is sandwiched between two oriented skins, and wherein the skins on one of their faces near the surface is provided with a radiation-absorbent layer.

Parent claim 9 was rejected on two alternate grounds. In one of the rejections, the Rinkewich patent is relied upon as the primary reference. In the Office Action, however, Examiner McNally recognizes that Rinkewich lacks many of the features of parent claim 9, and thus, relies upon multiple secondary references. One of these references which was previously relied upon is the Dries patent which relates to biaxially oriented packaging films which are provided in both of the layers to be welded together with an absorbent pigment so that a seal

seam can be obtained by laser welding. This was necessary to uniformly melt the entire film, not only the layers provided with a pigment.

A further secondary reference previously relied upon is Lusigne. As previously noted in the Amendment of May 29, 2008, in Lusigne there is no teaching of welding skins on the core. Rather, Lusigne uses glue, not any form of welding, much less laser radiation. Thus, at best, Lusigne is pertinent simply to the extent that it discloses oriented sheets or skins. There is no recognition in Lusigne however, that the superior mechanical properties conferred by the orientation could be maintained when oriented skins are welded to a honeycomb core and, in particular, by the use of laser radiation for the welding as defined in parent claim 9.

In the alternate rejection of parent claim 9, Fell was used as the primary reference in combination with the same references previously hypothetically combined with Rinkewich in addition to the optional combination of Rinkewich. Again, as with the case of the primary reliance on Rinkewich, in this alternative rejection, Examiner McNally recognized that many of the features of parent claim 9 were lacking in Fell, and accordingly, resorted to a hypothetical combination with 3 or 4 additional secondary references.

Accordingly in rejecting parent claim 9, Examiner McNally has relied upon 5 different individual distinct items of prior art. New to this group of prior art is the newly cited Nettesheim patent. In both of the alternative rejections, Nettesheim is relied upon with regard to the disclosure of a variant where at least one of the films is a compound film having an outer transparent layer and an inner absorbent layer. This specific variant is illustrated in Figure 8. Specifically, what is shown is two identical films 18, each of which includes an inner light absorbing layer 60 and an outer transparent layer 59. A sealed seam 58 results when the films are secured together. Although Nettesheim states that in the Figure 8 variant "at least one of the films 18 is a compound film having an outer, transparent layer 59," no disclosure is made of a practice of this variant where both films are not identical to each other, and more particularly, if not identical, what structure the other film would have. Clearly, all that is taught in this variant is the securing together of two films to result in a sealed seam. As regards the variant of Figure 8 the only disclosure of specific film structure is with regard to two identical films. This is nothing

like claim 9 where a film of the defined oriented structure is welded to a transparent honeycomb core and then another film is welded to the other side of the honeycomb core so as to result in a transparent cellular honeycomb core sandwiched between the two defined films having the orientation characteristics recited in claim 9.

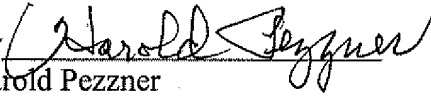
Accordingly, unlike Nettesheim, parent claim 9 defines a method where a film having a radiation-absorbent layer is welded directly to a completely transparent member, namely, the honeycomb core. While Figures 6-11 of Nettesheim show multiple variants, none of these variants are the same as claim 9, which would give a good mechanical anchorage. For example, although Nettesheim discloses numerous variants, no variant includes the combination of an upper film having the characteristics of the films in Figure 8 with a lower film having the characteristics of the films in Figure 9, much less having an intermediate transparent cellular honeycomb core.

As pointed out in the Amendment of November 5, 2008, it has been observed on a structure provided with a pigment only on one surface of the items to be welded (namely: the surface of the skins to be welded), the formation of asperities at the welding interface, so that a kind of black hooks (expanding from the pigmented layer of the skin) were mechanically anchored in the honeycomb core. Such a structure contributes to mechanically reinforce the weld so that very good adhesion is obtained without destruction of the orientation of the rest of the skin, even in the welded areas. Such results can not be achieved by Nettesheim who simply welds two films together and does not weld a film to a transparent honeycomb core.

While it is recognized that there is no legal limit as to how many references can be combined in rejecting a claim, one must give pause for concern when it is necessary to combine 4 or, optionally 5, different references in order to reject parent claim 9 and its dependent claims 10 and 12, and also to combine 5 or, optionally 6, references when rejecting dependent claims 11, and 14-15. It is respectfully submitted that the necessity to combine so many different distinct references is, in itself, a clear indication of the unobviousness of the claimed invention. When realistically viewed against the prior art, the only reasonable conclusion is that parent claim 9 defines a patentable invention.

In view of the above remarks and amendments, it is respectfully submitted that this application should be passed to issue.

Respectfully submitted,

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